

538,479

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/053418 A1

(51) International Patent Classification⁷: **F41A 25/22**

(21) International Application Number:
PCT/ZA2003/000182

(22) International Filing Date: 8 December 2003 (08.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02/10079 12 December 2002 (12.12.2002) ZA

(71) Applicant (for all designated States except US): **DENEL (PTY) LTD** [ZA/ZA]; 368 Selbourne Avenue, Centurion, 0182 Pretoria (ZA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PAUL, Lothar, Alwin** [ZA/ZA]; 45 Janet Street, Eldoraigne, 0157 Pretoria

(ZA). **KOTZE, Theunis, Gerhardus, Nicolaas** [ZA/ZA]; 61 Ringwood Road, Lynwood Manor, 0081 Pretoria (ZA).
DE SWARDT, Rolf, Reltz [ZA/ZA]; 10 Cedar Avenue, Clubview, 0157 Pretoria (ZA).

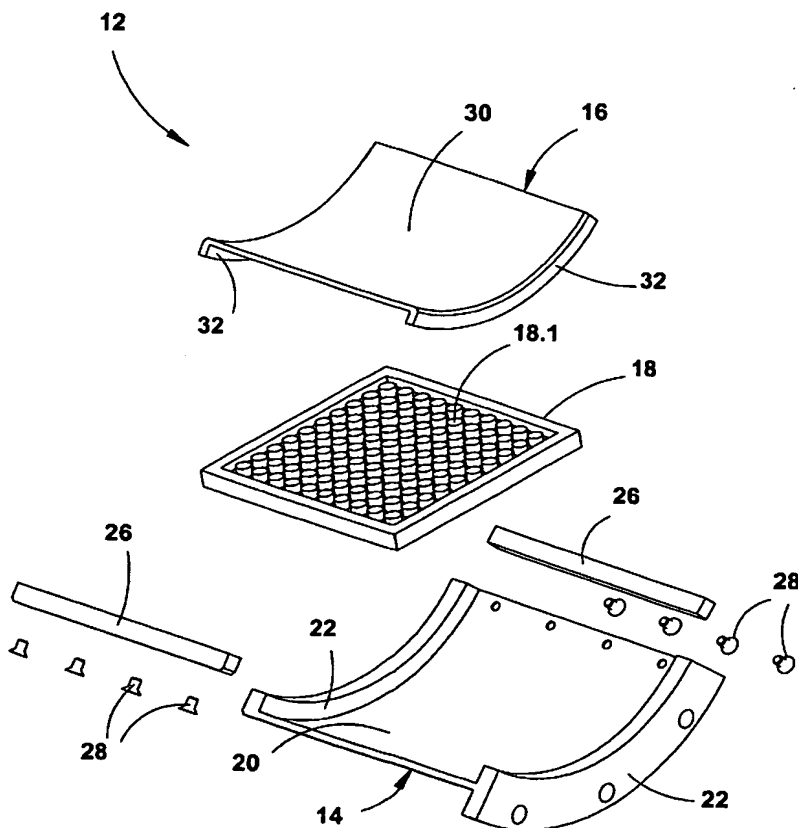
(74) Agent: **LE ROUX, Marius**; D.M. Kisch Inc., P.O. Box 781218, 2146 Sandton (ZA).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: GUN TUBE SUPPORT ASSEMBLY



(57) Abstract: This invention relates to a gun tube support assembly (10), which comprises four support sections (12) arranged annularly around a gun tube (13) and received in an opening in a cradle (15) of a gun. Each support section (12) comprises a bush housing (14), a cradle bush (16) and a damping means sandwiched between the bush housing (14) and cradle bush (16). The damping means is in the form of a rubber pad (18) made of relatively high-temperature silicon rubber. The rubber pad (18) includes a plurality of protrusions 18.1 extending from a face of the pad (18) for abutting an outer surface of the cradle bush (16). The protrusions (18.1) accommodate compression of the pad (18), the arrangement being such that the rubber pad (18) absorbs and dampens kinetic energy emanating from the gun tube (13) during firing of a projectile.

WO 2004/053418 A1



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments*

Published:

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*